

ABSTRACT

A Programmable Logic Device (PLD) incorporating a plurality of Programmable Logic Blocks (PLBs) providing enhanced flexibility for Cascade logic functions, each comprising a multi-input Look Up Table (LUT) providing one input to a Cascade Logic block for implementing desired Cascade Logic functions. The other input of the Cascade Logic block is a Cascade-In signal. A 2-input selection multiplexer receives one input from the output of the Cascade Logic block and the other from the output of the LUT for selecting either the Cascade Logic output or the LUT output as the unregistered output. The arrangement is such that the Cascade output and the multiplexer output are simultaneously available from the PLB.